

United States Patent [19]

Alaimo

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[54] **N-(6-ETHYL-4-THIOCYANATO-2-BENZO-THIAZOLYL)-5-NITROFURAMIDE**

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[52] U.S. Cl. **260/305; 424/270**

[51] Int. Cl.² **C07D 419/00**

[58] Field of Search **260/305; 424/285**

[56] **References Cited**

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OTHER PUBLICATIONS

Wagner et al., *Synthetic Organic Chemistry*, Wiley, NYC, 1953, Section 348.

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[57]

ABSTRACT

N-(6-ethyl-4-thiocyanato-2-benzothiazolyl)-5-nitrofuramide is an effective agent against coccidiosis in the chicken.

1 Claim, No Drawings

**N-(6-ETHYL-4-THIOCYANATO-2-BENZO-
THIAZOLYL)-5-NITROFURAMIDE**

This invention relates to the chemical compound N-(6-ethyl-4-thiocyanato-2-benzothiazolyl)-5-nitrofuramide and a method for preparing it.

The compound of this invention possesses anti-coc-
cidial action. When administered in feed at 0.022% by
weight thereof the title compound provided 100% mor-
tality protection against *Eimeria tenella* in chickens.

The method of making the compound of this inven-
tion consists in bringing together 2-amino-6-ethyl-4-
thiocyanatobenzothiazole and 5-nitro-2-furoyl chloride
in the presence of a solvent such as pyridine under the
influence of heat. It is illustrated by this example:

**N-(6-ethyl-4-thiocyanato-2-benzothiazolyl)-5-
Nitrofuramide**

To a solution of 2-amino-6-ethyl-4-thiocyanatoben-
zothiazole (6 g, 0.025 mole) in pyridine (50 ml) was
added 5-nitro-2-furoyl chloride (4.5 g, 0.025 mole).
The stirred mixture was heated for 30 minutes, then
chilled in an ice bath and filtered. After thorough wash-
ing with ethanol the air dried product weighed 8.5 g
(91%). Recrystallization from ethanol/dimethylforma-
mide provided an analytical sample which melted at
229°-231°.

Analysis — Calcd. for $C_{15}H_{10}N_4O_4S_2$ (Percent): C,
48.12, H, 2.69; N, 14.97 Found (Percent): C, 47.93; H,
2.93; N, 14.91.

What is claimed is:

1. N-(6-ethyl-4-thiocyanato-2-benzothiazolyl)-5-
nitrofuramide.

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